



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/672,328	09/29/2000	James A. Belmont	99104CON	1547

7590 03/22/2004
Michelle B Lando Esq
Cabot Corporation
Law Department
157 Concord Road
Billerica, MA 01821-7001

EXAMINER

OH, TAYLOR V

ART UNIT	PAPER NUMBER
----------	--------------

1625

DATE MAILED: 03/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/672,328	Applicant(s) BELMONT, JAMES A.	
	Examiner Taylor Victor Oh	Art Unit 1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 and 29-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 and 29-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The finality of the previous Office Action issued on 10/22/2003 is hereby withdrawn due to new ground of rejections.

Applicant's arguments with respect to claims 1-27 and 29-31 have been considered but are moot in view of the new ground(s) of rejection.

The Status of Claims

Claims 1-27 and 29-31 are pending.

Claims 1-27 and 29-31 have been rejected.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1-27, and 29-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims are directed to a modified pigment product comprising a pigment having attached a) at least one steric group and b) at least one organic ionic group and at least one amphiphilic counter ion. The modified pigment product has no final

Art Unit: 1625

definitive structure or description containing all the elements; with respect to classes of colored pigments , there are anthraquinones, phthalocyanin blues, phthalocyanin green, diazos, monoazos, etc. ; with respect to organic ionic groups, there are $C_6H_4CO_2$, $C_6H_4SO_3$, $C_{10}H_6CO_2$, $C_{10}H_6SO_3$, $C_2H_4SO_3$, and etc.; with respect to amphiphilic counter ions, there are cationic amphiphilic ions , anionic amphiphilic ions, and etc.

Furthermore, with respect to its spatial arrangement, the specification does not specify how the pigment is connected to one steric group , one organic ionic group, and one amphiphilic counter ion among them.

Although the specification has listed numerous colored pigments, organic ionic groups, and amphiphilic counter ions, the skilled artisan in the art has a burden to figure out what the definite claimed inventions are in the absence of the claimed formulas of the claimed invention. Therefore, the descriptions regarding the currently modified pigment product in the specification is inadequate in order for the skilled artisan in the art to grasp the essential features of the current invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-27, and 29-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1625

In claim 1, the phrases “ product comprising “ and “ pigment comprises” are recited. Those expressions “comprising” and “comprises” are vague and indefinite. This is because what the meaning of the terms “ product comprising” and “ pigment comprises” is that the product or the pigment may contain many additional components. The expression of “ a modified pigment product” would mean a single product. An appropriate correction is required.

In claim 1, the phrase “a modified pigment product comprising a pigment having attached a) at least one steric group and b) at least one organic ionic group and at least one amphiphilic conterion” is recited. This expression is vague and indefinite. With respect to its spatial arrangement, the claim does not describe how the pigment is connected to one steric group , organic ionic group, and one amphiphilic conterion among them. Therefore, an appropriate correction is required.

In claim 29, the phrases “ a printing plate comprising “ and “ a radiation-absorptive layer comprises” are recited. Those expressions “comprising” and “comprises” are vague and indefinite. This is because what the meaning of the terms “a printing plate comprising” and “a radiation-absorptive layer comprises” is that the printing plate or the radiation-absorptive layer may contain many additional components. The expression of “ a printing plate” would mean a single product. An appropriate correction is required.

Art Unit: 1625

In claim 2, the term " steric group comprises the formula" and " Nion comprises" are recited. This expression "comprises" is vague and indefinite. This is because what the meaning of the phrase " steric group comprises the formula" and " Nion comprises" is that the steric group comprises the formula" or " Nion acid product may contain many additional components. The Examiner recommends to change from " steric group comprises the formula" to " steric group is the formula" and from " Nion comprises" to " Nion is selected from the group consisting of. " An appropriate correction is required.

In claim 4, the phrase " non-ionic group further comprises" is recited. This expression "comprises" is vague and indefinite. This is because what the meaning of the phrase "non-ionic group further comprises" is that the non-ionic group may contain many additional components. The expression of "the non-ionic group" would mean a single product. An appropriate correction is required.

In claim 8, the phrases " steric group comprises", " X comprises", and " R comprises " are recited. This expression of "comprises" is vague and indefinite. This is because what the meaning of the phrases "steric group comprises ", " X comprises", and " R comprises " is that the steric group, X, and R may contain many additional components. The Examiner recommends to change from " steric group comprises the formula" to " steric group is the formula" and from " X comprises" to " X is selected from the group consisting of, " and " R comprises" to " R is selected from the group consisting of". An appropriate correction is required.

Art Unit: 1625

In claim 9, the phrases "steric group comprises" and "X comprises" are recited. This expression of "comprises" is vague and indefinite. This is because what the meaning of the phrases "steric group comprises", "X comprises" is that the steric group and may contain many additional components. The Examiner recommends to change from "steric group comprises the formula" to "steric group is the formula" and from "X comprises" to "X is selected from the group consisting of." An appropriate correction is required.

In claim 20, the phrases "steric group comprises", "X comprises", "polymer comprises", "X' comprises", "R comprises", and "monomer groups that comprise" are recited. This expression of "comprises" is vague and indefinite. This is because what the meaning of those phrases is that those groups may contain many additional components. The Examiner recommends to change from "steric group comprises the formula" to "steric group is the formula", from "X comprises" to "X is selected from the group consisting of, ", from "polymer comprises", and "monomer groups that comprise" to "polymer is not greater than 500 monomer repeating units". An appropriate correction is required.

In claims 2, 8, 9, and 20, the term "a spacer group" is recited. This expression is vague and indefinite. The claim does not describe what types of space groups are employed in the claimed structure. Therefore, an appropriate correction is required.

In claims 4 and 11, the term "a functional group" is recited. This expression is vague and indefinite. The claim does not describe what types of functional groups are employed in the claimed structure.. Therefore, an appropriate correction is required.

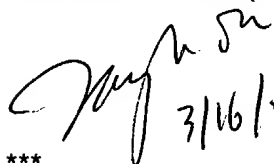
Art Unit: 1625

In claim 20 , the term " polymer" is recited. This expression is vague and indefinite. The claim does not describe what types of polymers are employed in the claimed structure. Therefore, an appropriate correction is required.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached from 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mckane can be reached on 571-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


3/16/04



BA K. TRINH
PRIMARY EXAMINER
GROUP 1200 1625